

# Harkirat Singh

in [Harkirat Singh](#)  
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## Education

### **Bennett University**

*B.tech Biotechnology*  
SGPA: 8.85

2020 – 2024

*Greater Noida, UP*

### **BRD Vidyapeeth**

*Senior Secondary School*  
CGPA: 9.15/10

2019 – 2020

*Karnal, HR*

### **BRD Vidyapeeth**

*Secondary School*  
CGPA: 8.60/10

2018 – 2019

*Karnal, HR*

## Career Objective

As a dedicated and results-driven Biotechnology undergraduate student, I am committed to continuous learning and growth. I am seeking an opportunity with a forward-thinking organization that not only values my potential but also provides a platform for me to excel in my chosen field. My objective is to contribute to the success of the organization by harnessing and developing my skills and abilities, aligning them with the company's mission, and fostering mutual growth and achievement

## Experience

### **Production and Characterization of Recombinant Oxacillinase protein of in *E. Coli***

AUG 2023 – DEC 2023

*Bennett University*

*Greater Noida, UP*

- Pioneered research on *Acinetobacter baumannii*, a multidrug-resistant pathogen, unraveling antibiotic resistance mechanisms.
- Utilized *E. coli* expression system for cost-effective production and characterization of oxacillinase proteins.
- Successfully cloned, expressed, and purified recombinant oxacillinase, providing insights for targeted interventions against multidrug-resistant strains.

### **NPD Department**

JUN 2023 – AUG 2023

*Patanjali*

*Padartha, UK*

- Demonstrated proficiency in molecular and cellular techniques, ensuring accurate data collection, analysis, and interpretation to drive product optimization.
- Played a key role in maintaining laboratory equipment, ensuring a safe and efficient work environment.
- I received firsthand knowledge of new product development approaches and testing procedures.

### **Integrating In silico and wet lab approaches for understanding the structure and function of protein**

JAN 2023 – MAY 2023

*Bennett University*

*Greater Noida, UP*

- Conducted a computational evaluation of 100 natural phytochemicals for their potential inhibition of KLF in pancreatic cancer, selecting the top 26 compounds based on their binding affinity.
- Performed protein purification and analyzed results on SDS-PAGE to assess the efficacy of the selected phytochemicals as potential therapeutic agents in pancreatic cancer treatment.

- › Successfully took part in Spark 2021, a major event put out by the Regional Centre of Biotechnology in Faridabad and BBB. Reached the event's Grand Finale and displayed great skill and knowledge in the field and demonstrated a strong desire for biotechnology and the capacity to do well in challenging circumstances.

## Nanotechnology

OCT 2021 — NOV 2021

SKILL UP by Simplilearn

- › Demonstrated the significance of Nanotechnology as a field dedicated to material and device construction, particularly highlighting its role in enhancing catalysis to improve the efficiency of fuel synthesis from raw petroleum resources.
- › Successfully completed both a Minor and a Major project, showcasing a strong track record of project management and research skills.

## Projects

- › Culture and Maintenance of mammalian Cell lines.
- › Cell Counting and Viability.
- › Docking of Phytochemical using Autodoc and PyRx.
- › Performed protein purification and analyzed results on SDS-PAGE.
- › Extract DNA from Leaves using SDS method and Visualization by agarose gel electrophoresis.
- › Amplification of DNA using PCR.
- › Production of beer and wine using bioreactor.

## Conferences Attended

- Participated in International Symposium ADVANCES IN NANOSENSORS & NANOMEDICINE 22<sup>th</sup> December 2021
- International Conference on Pharma and Medical Device Sector held in New Delhi, from 25<sup>th</sup>-27<sup>th</sup> April 2022.

## Skills

**Wet-Lab** Cell Viability Assays, Enzyme Assays, Immunohistochemistry, Cell Culture, ELISA, Protein Purification, PCR, DNA Extraction, Gel Electrophoresis, Aseptic Technique, Flow Cytometry etc.

**Dry-Lab** Data Analysis, Programming (Python, R), Database Management, Bioinformatics, Data Visualization, Genomic Data Analysis etc.

**Traits** Analytical, Curious, Organized, Adaptable, Detail-Oriented

**Talents** Bioinformatics, Lab Skills, Precision, Critical Thinking, Creativity

## Achievements

- Head, Student Council (2023-24)
- Head Event Management, Cultural Club of University (2022-23)
- Participates in SPARK 2021 and Successfully finished till Grand Finale.
- Participated in Bio-safety level III facility by the Department of Biochemistry in the University of Delhi south campus.
- Complete Specialization Course of Genetic Counseling and Precision Medicine.

## Industrial Visit

Patanjali Food and Herbal Park; Patanjali Research Institute; Amul; Dabur; Mahajan Imaging and Labs; Uttam Life Sciences;